



ecology and environment, inc.

International Specialists in the Environment

33 North Dearborn Street
Chicago, Illinois 60602
Tel. 312/578-9243, Fax: 312/578-9345



MEMORANDUM

DATE: November 4, 1999

TO: Justin Bowerman, START Project Manager, E & E, Cleveland, Ohio

FROM: Marcia Meredith Galloway, Chief Chemist, E & E, Buffalo, New York

THROUGH: Dave Hendren, START Analytical Services Manager, E & E, Chicago, Illinois

SUBJECT: Organic Data Quality Review for Polychlorinated Biphenyls (PCBs), Jefferson Processing Mingo Junction, Jefferson County, Ohio.

REFERENCE: Project TDD S05-9903-008 Analytical TDD S05-9903-807
Project PAN 9M0801SIXX Analytical PAN 9MAG01TAXX

The data quality assurance (QA) review of one wipe and four soil samples collected from the Jefferson Processing site is complete. The samples were collected on August 11, 1999, by the Superfund Technical Assessment and Response Team (START) contractor, Ecology and Environment, Inc. (E & E). The samples were submitted to DLZ Laboratories, Inc., Columbus, Ohio for analyses. The laboratory analyses were performed according to the U.S. EPA Solid Waste 846 Method 8082 for PCBs.

Sample Identification

START Identification No.	Laboratory Identification No.
JP-C-656340 (wipe)	SL22296-1
JP-C-657612	SL22296-2
JP-C-503736	SL22296-3
JP-L-249412	SL22296-4
JP-C-856281	SL22296-5

Data Qualifications:

I Sample Holding Time Acceptable

The samples were collected on August 11, 1999, extracted on August 16 and 19, 1999, and analyzed on August 21 to 26, 1999. This is within the 14-day holding time limit, from collection to extraction, and 40-day limit from extraction to analysis.

II Instrument Performance Acceptable

The chromatographic resolution was adequate in the standard and sample chromatograms. Surrogate retention times were consistent in the samples and standards.

III. Calibrations:

Initial Calibration: Acceptable

A five-point initial calibration was performed prior to analysis. The percent relative standard deviations (%RSD) of calibration factors in the initial linearity check were less than 20% for detected PCBs as required by Method 8082.

Continuing Calibration: Acceptable (see note)

The percent differences between the calibration standard response factors were less than 15%. In some cases the continuing calibration standard showed a higher percent difference probably due to sample carryover. A check standard run with the calibration standard showed acceptable recovery. No qualification is required, because the samples were bracketed by two acceptable standards.

IV. Blanks: Acceptable

A method blanks were analyzed with the samples. No target compounds were detected in the blanks.

V. Compound Identification: Qualified

The chromatograms and retention times of the detected PCBs in the samples matched those of the standards except for sample JP-C-657612. The PCB pattern for that sample was weathered and did not show a good pattern match. In addition, the matrix spike/matrix spike duplicate (MS/MSD) ran on that sample showed poor recovery and inconsistent results. The PCB results for that sample are qualified "J" as estimated.

VI. Additional QC Checks: Qualified

The recoveries of the surrogates used in the samples were within acceptable laboratory control limits for the wipe sample. The surrogate recoveries were low for sample JP-C-657612, but the result is qualified "J" as estimated. The laboratory control sample (LCS) showed acceptable recoveries.

VII. Overall Assessment of Data for Use: Acceptable

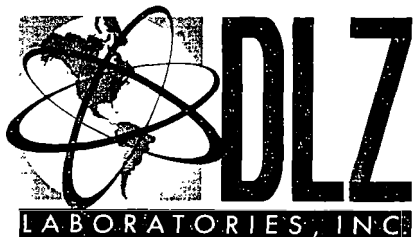
The overall usefulness of the data is based on criteria for QA Level II as outlined in the Office

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of Solid Waste and Emergency Response (OSWER) Directive 9360.4-01 (April 1990), Data Validation Procedures, Section 7.0, PCBs. Based upon the information provided, the data are acceptable for use with the above noted qualifications..

Data Qualifiers and Definition

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the required detection limits or quality control criteria were not met.



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CHICAGO, IL 60602

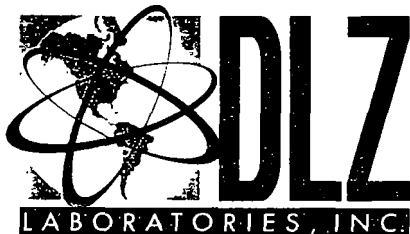
Lab Number: SL22296-1
Report Date: 08/27/99
Analyzed :08-21-99
Analyzed by:ALB
Method :8082

Job Name: KJ5104, SO5-9903-807

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
JP-C-656340 OUTDOOR TRANSFORMER AREA	Wipe	CLIENT	11 AUG 99/15:00	13 AUG 99
ANALYTE			RESULT ug/Wipe	*RDL ug/Wipe

Total PCB Compounds:				
PCB-1016			2.0	1.0
PCB-1221			<1.0	1.0
PCB-1232			<1.0	1.0
PCB-1242			<1.0	1.0
PCB-1248			<1.0	1.0
PCB-1254			<1.0	1.0
PCB-1260			34	1.0

* Reporting Detection Limit



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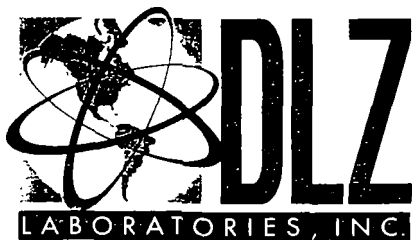
Lab Number: SL22296-2
Report Date: 08/27/99
Analyzed :08-24-99
Analyzed by:ALB
Method :8082

Job Name: KJ5104, S05-9903-807

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
JP-C-657612 OUTDOOR TRANSFORMER AREA	Solid	CLIENT	11 AUG 99/15:00	13 AUG 99
ANALYTE			RESULT mg/KgDry	*RDL mg/KgDry
Total PCB Compounds:				
PCB-1016			<0.2	0.2
PCB-1221			<0.2	0.2
PCB-1232			<0.2	0.2
PCB-1242			<0.2	0.2
PCB-1248			<0.2	0.2
PCB-1254			<0.2	0.2
PCB-1260			2.3	0.2

* Reporting Detection Limit

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11/4/99



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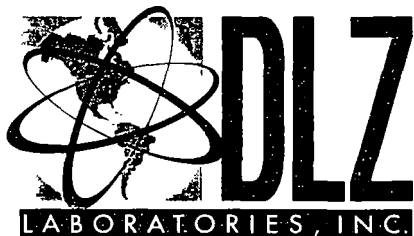
Lab Number: SL22296-3
Report Date: 08/27/99
Analyzed :08-26-99
Analyzed by:RSG
Method :8082

Job Name: KJ5104, SO5-9903-807

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
JP-C-503736 BUILDING	Solid	CLIENT	11 AUG 99/14:40	13 AUG 99
J-1 1ST FLOOR				
ANALYTE			RESULT mg/KgDry	*RDL mg/KgDry

Total PCB Compounds:				
PCB-1016			<50000	50000
PCB-1221			<50000	50000
PCB-1232			<50000	50000
PCB-1242			<50000	50000
PCB-1248			<50000	50000
PCB-1254			<50000	50000
PCB-1260			278000	50000

* Reporting Detection Limit



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Job Name: KJ5104, SO5-9903-807

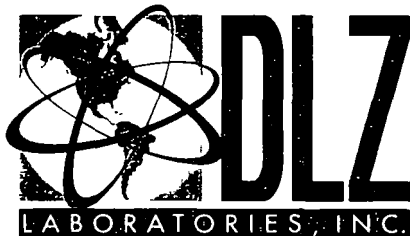
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Lab Number: SL22296-4
Report Date: 08/27/99
Analyzed :08-26-99
Analyzed by:RSG
Method :8082

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
JP-L-249412 BUILDING	Solid	CLIENT	11 AUG 99/14:48	13 AUG 99
J-2 4TH FLOOR				
ANALYTE			RESULT mg/KgDry	*RDL mg/KgDry

Total PCB Compounds:				
PCB-1016			<10	10
PCB-1221			<10	10
PCB-1232			<10	10
PCB-1242			<10	10
PCB-1248			<10	10
PCB-1254			<10	10
PCB-1260			38	10

* Reporting Detection Limit



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Job Name: KJ5104, SO5-9903-807

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Lab Number: SL22296-5
Report Date: 08/27/99
Analyzed :08-26-99
Analyzed by:RSG
Method :8082

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
JP-C-856281 BUILDING	Solid	CLIENT	11 AUG 99/14:50	13 AUG 99
J-2 4TH FLOOR				
ANALYTE			RESULT mg/KgDry	*RDL mg/KgDry

Total PCB Compounds:				
PCB-1016			<50000	50000
PCB-1221			<50000	50000
PCB-1232			<50000	50000
PCB-1242			<50000	50000
PCB-1248			<50000	50000
PCB-1254			<50000	50000
PCB-1260			212000	50000

* Reporting Detection Limit

Detection limits were raised in sample SL22296-2 for PCB compounds due to matrix interferences.

DO = Surrogates were diluted out in samples SL22296-3, 4 and 5 due to the high level of dilution required for the sample.

Detection limits were raised in samples SL22296-3, 4 and 5 for PCB compounds due to elevated target compound levels.